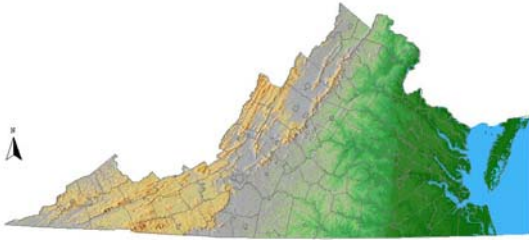


Virginia Base Mapping Program (VBMP) Digital Orthophotography Acquisition Project

Virginia E-911 Wireless Services Board
Virginia Geographic Information Network



The Virginia Base Mapping Program (VBMP)

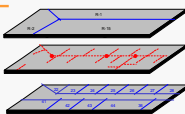
Goal: move towards one consistent, accurate, and efficient statewide spatial information infrastructure that will streamline state and local government operations, facilitate data sharing, and support a broad range of citizen services.

Objectives 2002:

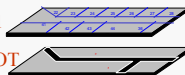
1. Acquire **digital orthophotography** at 1:4,800 (rural) or 1:2,400 (urban) for the entire land base of Virginia in 2002.
2. Acquire and fully integrate accurate **road centerlines** (VDOT) with appropriate attribution.
3. Coordinate a collaborative procedure that will establish and maintain an accurate statewide **geocoded address file**.
4. Produce and distribute a **reference book** with **guidelines and standards** for the development, use, and maintenance of local government spatial data and applications

Stakeholder Driven
Guidelines, Standards,
and Leadership guide
local government data
development

Planimetrics & Cadastre



Addresses – E 911

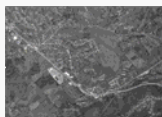


Street Centerline - VDOT



Digital Orthophoto Base

Proposed
Commonwealth-wide
DO Base Map



COMMONWEALTH OF VIRGINIA
Office of the Governor

GOVERNOR WARNER ANNOUNCES UNPRECEDENTED STATEWIDE MAPPING PROGRAM

RICHMOND - Governor Mark R. Warner today announced the completion of the first phase of an unprecedented statewide mapping effort. High quality aerial photography of the entire commonwealth was phase one of the project. The Virginia Base Mapping Program's accomplishment represents a major landmark in the mapping industry - the most photographs ever taken for a single mapping project in a single, two-month flying season.

"Accurate base maps are an essential tool in almost every aspect of state and local government operations, from stewardship of our environment, to economic development, to public safety," Governor Warner said. "In this time of increased concern over homeland security, the ability to plan for and rapidly respond to terrorist attacks or disasters, with accurate information from across agency and jurisdictional boundaries, is absolutely essential."

"We must have accurate information on our land use, public services and facilities, and natural resources - and be able to easily exchange it among state and local agencies--if we are to effectively manage our future," said Virginia Secretary of Technology George Nevison. "The Virginia Base Mapping Program will for the first time allow every local government and every state agency to share a single, consistent mapping foundation upon which to organize and maintain such critical data. In addition this project is saving individual local governments over 50% of the cost of creating such digital mapping on their own."

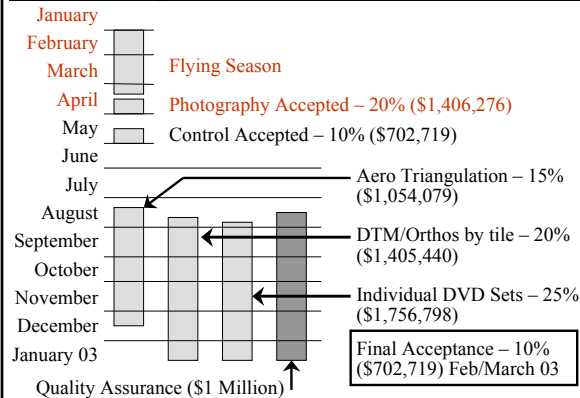
VGIN is also coordinating with the Assistant to the Governor for Commonwealth Preparedness, John Hager. "The Virginia Base Mapping Program is a great example of evolving technology, which serves multiple needs, including strengthening our abilities to deter and respond to terrorist attacks," said Hager.

Completion of the statewide aerial photography (known in the industry as "digital orthophotography") marks the end of the first phase of the program. VARGIS, LLC, of Herndon, VA, the project contractor, and its primary subcontractors successfully captured aerial imagery for the entire state of Virginia: over 27,000 frames acquired at three different map scales in just six weeks time. The VARGIS team includes 12 Virginia firms.

The images will be used in the remaining two phases of the program to create accurate digital photos ("digital orthoimagery") covering approximately 48,000 square miles, with the end product available to each of Virginia's cities, counties, and state agencies by February 2003.

For more information contact Bill Shinar, (804) 786-8175, Virginia Geographic Information Network (VGIN), www.vgin.state.va.us.

VBMP DO Acquisition Deliverable and Payment Schedule



VBMP Flight and Control Review Team

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VBMP Radiometry Review Team

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VDOT

John Scrivani

Research Forester, Virginia Department of Forestry (VDOF)

Bob Rike

Assistant Coordinator for Local Government, VGIN

Roads: All VA Roads
See Issues: Roads, All VA

The Road data layer contains all roads in Virginia. Road segments are represented as line features. This layer should be used for address matching.

	Spatial Data Layer	Attribute/Tabular Data
Source Data	1:250,000 (road) 1:250,000 (urban)	
Map Accuracy	to 100 feet (road) to 40 feet (urban)	
Feature	Line/Point	Line/Point
Data Source	Geographic Data Technology, Inc. (2001) Product: Coverage 2001 (derived from 2:5 Source: TIGER File)	Geographic Data Technology, Inc. (2001) Product: Coverage 2001 (derived from 2:5 Source: TIGER File)
Data Coverage	Virginia, 2001	Virginia, 2001
Completeness of Data	While this is considered the most extensive statewide road spatial database, it is not updated on a monthly basis, and is therefore not 100% complete.	While this is considered the most extensive statewide road attribute database, it is not updated on a monthly basis, and is therefore not 100% complete.
Update Schedule	Year 2002 <small>Note: While annual updates will be downloaded from GDC, it should be understood that attribute data may still be incomplete and dated.</small>	Annually <small>Note: While annual updates will be downloaded from GDC, it should be understood that attribute data may still be incomplete and dated.</small>

VGIN
Virginia Geographic Information Network

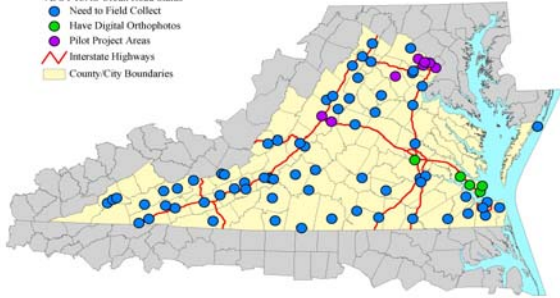
VDOT's Centerline Delivery Plan by District

May	7. Culpeper
June	8. Staunton
July	6. Fredericksburg
August	9. Northern Virginia
Sept.	4. Richmond
Oct.	5. Hampton Roads
Nov.	3. Lynchburg
Nov.	2. Salem
Dec.	1. Bristol



VDOT ICAS Urban Roads Status

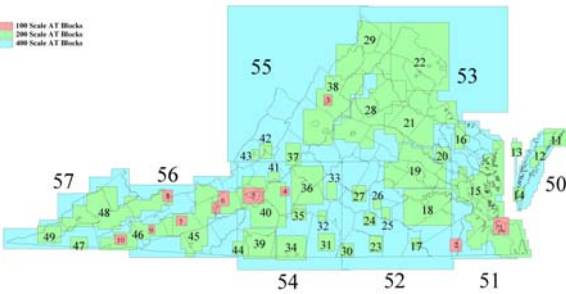
- VDOT ICAS Urban Road Status
- Need to Field Collect
 - Have Digital Orthophotos
 - Pilot Project Areas
 - Interstate Highways
 - County/City Boundaries



Virginia Geographic Information Network
<http://www.vgin.state.va.us> **VCIN**

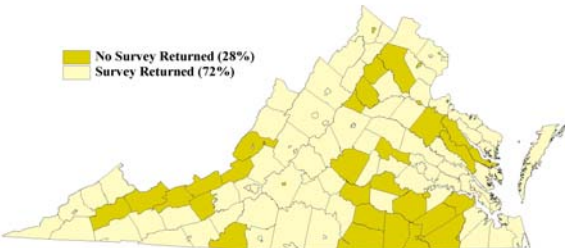
AT Blocks for VBMP

- 100 Scale AT Blocks
- 200 Scale AT Blocks
- 400 Scale AT Blocks



Status of Addressing Survey May 6, 2002

- No Survey Returned (28%)
- Survey Returned (72%)



VBMP GIS Reference Text

Or

Local Government GIS Application
“how to” Manual

■ **Public Safety Communications**

E – 911

■ **Fire & Rescue**

Travel Time & Distance Analysis

Incident Mapping

Hazmat & Disaster Pre-Planning

Emergency Operations Management

Strategic Planning & Analysis

■ **Schools**

School Boundary Redistricting

Strategic Planning/Capital Needs

Bus Routing

■ **Registrar**

Address Verification for Voter Registration

Redistricting

■ **Police**

Crime Mapping/Analysis

Strategic Planning/Capital Needs

Crime Prevention

■ **Planning**

Develop. & Maintenance of Comprehensive Plan
Zoning Enforcement – Rezoning
Plan Review/Development Analysis
Wireless Communication Existing & Proposed
Tower Site Analysis
Historic & Cultural Inventory/Preservation
Transportation Planning & Maintenance

■ **Operations**

Address Assignment
Geodetic Monument Inventory Status

■ **Health Department**

Epidemiology

■ **Finance/Tax – Parcel Mapping**

Land Ownership I. D./Property Inventory
Property Assessments
Equalization
Archive of Parcel Changes
Site Plan/Plat Review

■ **County Exec. & Board of Supervisors**

Demographic Analysis
Capital Improvement Project Analysis
Land Use & Development Studies
County Asset Inventory

■ **Park Authority**

Site Location and Analysis
Asset Inventory

■ **Economic Development**

Available Building & Site Inventory
Site Location & Evaluation
Market Research Analysis Studies

■ **Public Works/Service Authority**

Water & Sewer Service Areas
Pipe Inventory
Water Meter Location Inventory
Landfill Management
Storm Water Management System
Storm Water Drainage System Inventory
NPDES Program
Wetlands Inventory
Soils Analysis
Environmental Impact Analysis

■ **Spatial Data**

Minimal Requirements
Optional Requirements

■ **Attribute Data**

Minimum Requirements
Optional Requirements

■ **Data Acquisition Options**

(integrated with VBMP digital orthos)

■ **Data Conflation Options**

(integrated with VBMP digital orthos)

■ **Internet Functionality & Options**

■ **Minimum Technical Requirements**

(Optimum Technical Requirements)

■ **Administrative/Management Requirements**

■ **Cost – Cost/Benefit**

■ **Standards/Guidelines Summary**

■ **Startup Procedures/Steps**

■ **Estimated Time Line and/or Implementation (stand alone) Schedule**

■ **Best Practices Examples in Virginia**

- **Anderson & Associates** (Blacksburg, Virginia)
- **GeoDecisions** (Newport News, Virginia)
- **ILS** (Silver Spring, Maryland)
- **Michael Baker Corporation** (Virginia Beach, Virginia)
- **MSAG** (Orange, Virginia)
- **Terralogic** (Staunton, Virginia)

Special recognition will be given to firms that contributed to the VBMP GIS Reference text.

Distribution

- All Virginia local jurisdictions (134)
- Distributed with the VBMP ortho-photography

Virginia Base Mapping Program (VBMP)

Virginia E-911 Wireless Services Board
Virginia Geographic Information Network

